

What is claimed is:

1. A design chart, characterized in that scale grid lines of one of polar coordinates and orthogonal coordinates are drawn on a Smith chart.
2. The design chart of claim 1, wherein the Smith chart has a center, the scale grid lines have an origin, and the origin of the scale grid lines is placed at the center of the Smith chart.  
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3. The design chart of claim 1, wherein an admittance chart is used instead of the Smith chart.
4. The design chart of claim 1, wherein the scale grid lines drawn on the Smith chart are the scale grid lines of the polar coordinates, wherein the scale grid lines of the polar coordinates include a plurality of circular distance lines drawn with a constant interval from a center of the Smith chart and a plurality of radial angle lines with a constant angle from the center of the Smith chart.  
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5. The design chart of claim 1, wherein the scale grid lines drawn on the Smith chart are the scale grid lines of the orthogonal coordinates, wherein the scale grid lines of the orthogonal coordinates include a plurality of vertical lines drawn with a constant interval from a center of the Smith chart and a plurality of horizontal lines drawn with a constant interval from the center of the Smith chart.  
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- 20 6. An apparatus for displaying a design chart comprising:
  - a first display unit for displaying a Smith chart; and
  - a second display unit for displaying scale grid lines of one of polar coordinates and orthogonal coordinates on the displayed Smith chart.
7. The apparatus for displaying the design chart of claim 6, wherein the second display unit detects the center of the Smith chart and displays the scale  
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grid lines so that the origin of the scale grid lines is displayed at the detected center.

8. The apparatus for displaying the design chart of claim 6, further comprising a storage area for storing data for drawing the Smith chart, wherein the first display unit reads the data for drawing the Smith chart from the storage area, and displays the Smith chart based on the read data for drawing the Smith chart.

9. The apparatus for displaying the design chart of claim 8, wherein the storage area stores the data for drawing the scale grid lines including at least one of the polar coordinates and the orthogonal coordinates, wherein the second display unit reads the data for drawing the scale grid lines from the storage area, and displays the scale grid lines on the Smith chart based on the read data for drawing the scale grid lines.

10. The apparatus for displaying the design chart of claim 9, wherein the storage area stores the data for drawing a plurality of sets of scale grid lines including the polar coordinates and the orthogonal coordinates, wherein the second display unit selects one of the scale grid lines from the plurality of the scale grid lines, reads the data for drawing the selected scale grid lines from the storage area, and displays the scale grid lines on the Smith chart based on the read data for drawing the scale grid lines.

11. The apparatus for displaying the design chart of claim 6, wherein the second display unit inputs a parameter for specifying a size of the scale grid lines, calculates the size of the scale grid lines based on the input parameter, and displays the scale grid lines based on the calculated size.

25 12. The apparatus for displaying the design chart of claim 6, wherein the first

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display unit displays an admittance chart instead of the Smith chart.

13. A method for generating a design chart comprising:

generating a Smith chart; and

generating scale grid lines of one of polar coordinates and orthogonal

5 coordinates on the generated Smith chart.

14. The design chart of claim 1 which is generated by a first mechanism for generating the Smith chart and a second mechanism for detecting a center of the Smith chart and generating the scale grid lines so that an origin of the scale grid lines is placed at the detected center.

15. The design chart of claim 1 which is drawn by an apparatus for displaying the design chart including a first display unit for displaying the Smith chart and a second display unit for displaying the scale grid lines of one of polar coordinates and orthogonal coordinates on the Smith chart.